

Application No. 09/713,780  
Amendment dated August 31, 2004  
Reply to Office Action of May 18, 2004

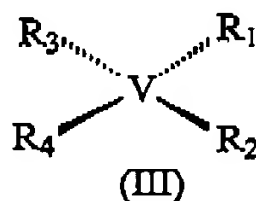
### Amendments to the Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

### Listing of Claims:

1-3. (canceled)

4. (currently amended) ~~The method of claim 1~~ A method for inhibiting angiogenesis in a non-cancerous tissue comprising administering to a subject an effective angiogenesis inhibiting amount of a vanadium compound having, wherein the vanadium compound has the following structure:



wherein

R<sub>1</sub> and R<sub>2</sub> are each independently a monodentate ligand or together form a bidentate ligand; and

R<sub>3</sub> and R<sub>4</sub> are each independently a cyclopentadienyl ring, wherein each cyclopentadienyl ring is optionally substituted with one or more (C<sub>1</sub>-C<sub>3</sub>)alkyl.

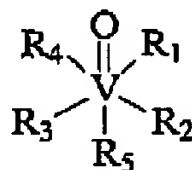
5. (withdrawn) The method of claim 4, wherein R<sub>1</sub> and R<sub>2</sub> are each independently a monodentate ligand selected from the group consisting of halo, OH<sub>2</sub>, O<sub>3</sub>SCF<sub>3</sub>, N<sub>3</sub>, CN, OCN, SCN, SeCN, and a cyclopentadienyl ring, wherein each cyclopentadienyl ring is optionally substituted with one or more (C<sub>1</sub>-C<sub>3</sub>)alkyl.

6. (withdrawn) The method of claim 5, wherein R<sub>1</sub> and R<sub>2</sub> are each independently halo.

7. (withdrawn) The method of claim 6, wherein halo is chloro, bromo, or iodo.

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8. (withdrawn) The method of claim 6, wherein halo is chloro.
9. (currently amended) The method of claim 4, wherein  $R_1$  and  $R_2$  together form a bidentate ligand selected from the group consisting of acetylacetonate, 2,2' bipyridine, hexafluoroacetylacetonate, catecholate, diethyl dithio carbamate, N-phenyl benzohydroxamic acids, acethydroxamic acid, and salts ~~aeac, Bpy, Hfaac, Cat, Dte, PH, H and derivatives thereof.~~
10. (original) The method of claim 9, wherein the bidentate ligand is aeac or a derivative acetylacetonate or a salt thereof.
11. (withdrawn) The method of claim 1, wherein the vanadium compound has the following structure:



wherein

- $R_1$  and  $R_2$  are each independently a monodentate ligand or together form a bidentate ligand;
- $R_3$  and  $R_4$  together form a bidentate ligand; and
- $R_5$  is a monodentate ligand, or is absent.

12. (withdrawn) The method of claim 11, wherein  $R_1$  and  $R_2$  are each independently a monodentate ligand selected from the group consisting of halo,  $OH_2$ ,  $O_3SCF_3$ ,  $N_3$ , CN, OCN, SCN, SeCN, and a cyclopentadienyl ring, wherein each cyclopentadienyl ring is optionally substituted with one or more  $(C_1-C_3)$ alkyl.

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13. (withdrawn) The method of claim 12, wherein,  $R_3$  and  $R_4$  together form a bidentate ligand selected from the group consisting of acetylacetonate, 2,2' bipyridine, hexafluoroacetylacetonate, catecholate, diethyl dithio carbamate, N-phenyl benzohydroxamic acids, acetylhydroxamic acid, and salts ~~acac, Bpy, Hfacac, Cat, Dte, PH, H and derivatives thereof.~~

14. (withdrawn) The method of claim 11, wherein  $R_1$  and  $R_2$  together form a bidentate ligand selected from the group consisting of acetylacetonate, 2,2' bipyridine, hexafluoroacetylacetonate, catecholate, diethyl dithio carbamate, N-phenyl benzohydroxamic acids, acetylhydroxamic acid, and salts ~~acac, Bpy, Hfacac, Cat, Dte, PH, H and derivatives thereof.~~

15. (withdrawn) The method of claim 1, wherein said vanadium compound is:  
VCp<sub>2</sub>Cl<sub>2</sub>, VCp<sub>2</sub>Br<sub>2</sub>, VCp<sub>2</sub>I<sub>2</sub>, VCp<sub>2</sub>(N<sub>3</sub>)<sub>2</sub>, VCp<sub>2</sub>(CN)<sub>2</sub>, VCp<sub>2</sub>(NCO)<sub>2</sub>, VCp<sub>2</sub>(NCO)Cl,  
VCp<sub>2</sub>(NCS)<sub>2</sub>, VCp<sub>2</sub>(NCSe)<sub>2</sub>, VCp<sub>2</sub>Cl (CH<sub>3</sub>CN)(FeCl<sub>4</sub>), VCp<sub>2</sub>(O<sub>3</sub>SCF<sub>3</sub>)<sub>2</sub>, V(MeCp)<sub>2</sub>Cl<sub>2</sub>,  
V(Me<sub>5</sub>Cp)<sub>2</sub>Cl<sub>2</sub>, VCp<sub>2</sub>(acac), VCp<sub>2</sub>(hf-acac), VCp<sub>2</sub>(bpy), VCp<sub>2</sub>(cat), VCp<sub>2</sub>(dtc), VCp<sub>2</sub>PH, or  
VCp<sub>2</sub>H.

16. (withdrawn) The method of claim 1, wherein said vanadium compound is:  
[VO(phen)], [VO(phen)<sub>2</sub>], [VO(Me<sub>2</sub>-phen)], [VO(Me<sub>2</sub>-phen)<sub>2</sub>], [VO(Cl-phen)], [VO(Cl-phen)<sub>2</sub>], [VO(bipy)], [VO(bipy)<sub>2</sub>], [VO(Me<sub>2</sub>-bipy)], [VO(Me<sub>2</sub>-bipy)<sub>2</sub>], and [VO(Br,OH-acph)<sub>2</sub>].

17-24. (canceled)

25. (currently amended) The method of claim ~~1~~ 4 wherein the non-cancerous tissue is a vascular tissue.

26. (previously presented) The method of claim 16 wherein the vascular tissue is a coronary artery.

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27. (currently amended) The method of claim ~~1~~ 4 wherein the non-cancerous tissue is a retina
28. (currently amended) The method of claim ~~1~~ 4 wherein the non-cancerous tissue is a tumor
29. (currently amended) The method of claim ~~19~~ 28 wherein the tumor is a hemangioma.
30. (new) The method of claim 25, wherein the angiogenesis is associated with injury to the vascular tissue.
31. (new) The method of claim 30, wherein the angiogenesis is associated with restenosis following injury to the vascular tissue.
32. (new) The method of claim 25, wherein the vascular tissue is a vessel.
33. (new) The method of claim 32, wherein the vessel is a coronary artery.
34. (new) The method of claim 32, wherein the injury to the vessel is associated with balloon angioplasty, vessel stent, rotational and directional atherectomy, or laser angioplasty.
35. (new) The method of claim 27, wherein the angiogenesis is associated with retinopathy.
36. (new) The method of claim 35, wherein the retinopathy is associated with diabetes.